MA262-15 Scientific Communication

22/23

Department Warwick Mathematics Institute Level Undergraduate Level 2 Module leader Helena Verrill Credit value 15 Module duration 45 weeks Assessment Multiple Study location University of Warwick main campus, Coventry

Description

Introductory description

It is a multifaceted module covering various aspects of scientific communication from presenting a research paper to presenting yourself to the job market.

Module aims

Complete learning of Python. Learn LaTeX and Excel. Review the first year material at the beginning of the second year. Prepare the students for the job market. Provide an opportunity for students to learn Mathematics directly from books and other sources and to develop research skills. Develop written and oral exposition skills.

Outline syllabus

This is an indicative module outline only to give an indication of the sort of topics that may be covered. Actual sessions held may differ.

- Latex, Python and Excel mini-courses on moodle
- Year 1 Refresher
- Employability study
- Mathematical Essay

Learning outcomes

By the end of the module, students should be able to:

- Learn how to write Mathematics
- · Practice various presentation skills
- Improve the programming skills in Python
- Develop research skills
- Learn essential transferrable skills improving job market competitiveness

Indicative reading list

The reading list is going to change due to the extended remit of this module

View reading list on Talis Aspire

Research element

The students will research their own topics for the essay, and look through many sources to come up with their own story but they will not be doing any original research.

Subject specific skills

It is a multi-component module, where the students will learn several research and communication tools. It will include further mastering of Python as well as getting familiar with LaTex and Excel. For the essay itself the students have the opportunity to choose their own topic, and then to learn some in-depth mathematics directly from books and other sources. They will develop written and oral exposition skills and learn how to write mathematics well. They will develop research skills, including planning, use of library and the internet.

Transferable skills

- independent study
- research skills
- formal writing & typesetting
- · essay and curriculum vitae writing
- presentation skills
- experience of working under a supervisor
- Python, Excel and LaTeX (which could be replaced if other tools become standard

Study

Study time

Туре

Online learning (independent) Private study Assessment Total Required 4 sessions of 3 hours (8%) 32 hours (21%) 106 hours (71%) 150 hours

Private study description

Research for various components

Costs

No further costs have been identified for this module.

Assessment

You do not need to pass all assessment components to pass the module.

Assessment group A

	Weighting	Study time
Essay	30%	40 hours
Word limit: 12 pages		
Essay Presentation	10%	4 hours
Essay presentation		
Python Mini-Course 3 Assessment	15%	10 hours
Moodle based mini-course assessment		
Latex Mini-Course Assessment	10%	12 hours
Moodle based mini-course assessment		
Excel Mini-Course Assessment	10%	10 hours
Moodle based mini-course assessment		
Year 1 Refresher Homework	15%	15 hours
Long homework to refresh the first year linear alg	ebra and analysis	
Employability Study	10%	15 hours
CV, setting up a profile, career path document		

	Weighting	Study time
Essay	40%	
Word limit: 12 pages		
Python Mini-Course 3 Assessment	25%	
Excel Mini-Course Assessment	10%	
Year 1 Refresher Homework	15%	
Employability Study	10%	
CV, setting up a profile, career path document		

Feedback on assessment

Formative feedback available from the personal tutor throughout year. Assessment of earlier components is available during the year.

Availability

Courses

Course availability information is based on the current academic year, so it may change. This module is Core for:

- Year 2 of UMAA-G105 Undergraduate Master of Mathematics (with Intercalated Year)
- UMAA-G100 Undergraduate Mathematics (BSc)
 - Year 2 of G100 Mathematics
 - Year 2 of G100 Mathematics
 - Year 2 of G100 Mathematics
- UMAA-G103 Undergraduate Mathematics (MMath)
 - Year 2 of G100 Mathematics
 - Year 2 of G103 Mathematics (MMath)
 - Year 2 of G103 Mathematics (MMath)
- Year 2 of UMAA-G1NC Undergraduate Mathematics and Business Studies
- Year 2 of UMAA-G1N2 Undergraduate Mathematics and Business Studies (with Intercalated Year)
- Year 2 of UMAA-G101 Undergraduate Mathematics with Intercalated Year

This module is Option list A for:

- Year 2 of UMAA-GL11 Undergraduate Mathematics and Economics
- Year 2 of UECA-GL12 Undergraduate Mathematics and Economics (with Intercalated Year)